

FIGURE 1

EpCAM_nt	1		0
Ovr232_nt	1	CAGATCTCAATTATCTAATTGCAATTGCAACGAGAACCAAAGCAGGGGAG	50
EpCAM_nt	1		0
Ovr232_nt	51	CAGAGACAAACAATTTCTGAGGTAACCAGATGGCTTTATTA ACTCAAGTT	100
EpCAM_nt	1		0
Ovr232_nt	101	CTCACCTAAAATTGCCCTCAAGAATCCTGTGGGAATGGGTTCAGTGGTG	150
EpCAM_nt	1		0
Ovr232_nt	151	TGGCCCTGGATTCAACAACGACAGAGCTTCTGAATTCTGAGTGATCTGTA	200
EpCAM_nt	1		0
Ovr232_nt	201	CACAAACACACCTCTGCCTGGGTTACACGCCCTCCACGTTCTCTATCCAG	250
EpCAM_nt	1		0
Ovr232_nt	251	TTCCCGCACCCCTTCCCCCAGGCCCCATTCTTCAAGGCTTCAGAGCAGCG	300
EpCAM_nt	1		0
Ovr232_nt	301	CTCCTCCGGTTAAAAGGAAGTCTCAGCACAGAATCTTCAAACCTCCTCGG	350
EpCAM_nt	1		0
Ovr232_nt	351	AGGCCACCAAAGATCCCTAACGCCGCCATGGAGACGAAGCACCTGGGGCG	400
EpCAM_nt	1		0
Ovr232_nt	401	GGGCGGAGCGGGGCGCGGGGCCACACCTGTGGAGAGGGCCGCGCCCCA	450
EpCAM_nt	1		0
Ovr232_nt	451	ACTGCAGCGCCGGGGCTGGGGGAGGGGAGCCTACTCACTCCCCCAACTCC	500
EpCAM_nt	1		0
Ovr232_nt	501	CGGGCGGTGACTCATCAACGAGCACCAGCGGCCAGAGGTGAGCAGTCCCG	550
EpCAM_nt	1		0
Ovr232_nt	551	GGAAGGGGCCGAGAGGCGGGGCCGCCAGGTCGGGCAGGTGTGCGCTCCGC	600
EpCAM_nt	1	CGGCGAGCGAGCACCTTCGAC	21
Ovr232_nt	601	CCCGCCGCGCGCACAGAGCGCTAGTCCTTCGGCGAGCGAGCACCTTCGAC	650
EpCAM_nt	22	GCGGTCCGGGGACCCCCCTCGTCGCTGTCTCTCCCGACGCGGACCCGCGTGC	71
Ovr232_nt	651	GCGGTCCGGGGACCCCCCTCGTCGCTGTCTCTCCCGACGCGGACCCGCGTGC	700
EpCAM_nt	72	CCCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCA	121
Ovr232_nt	701	CCCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCA	750

FIGURE 1 (continued)

EpCAM_nt	122	CGCCCTCCCGCGAGTCCCGGGCCCCCTCCCGCGCCCCCTCTTCTCGGCGCGC	171
Ovr232_nt	751	CGCCCTCCCGCGAGTCCCGGGCCCCCTCCCGCGCCCCCTCTTCTCGGCGCGC	800
EpCAM_nt	172	GCGCAGCATGGCGCCCCCGCAGGTCTCGCGTTCGGGCTTCTGCTTGCCG	221
Ovr232_nt	801	GCGCAGCATGGCGCCCCCGCAGGTCTCGCGTTCGGGCTTCTGCTTGCCG	850
EpCAM_nt	222	CGGCGACGGCGACTTTTGGCCGAGCTCAGGAAGAATGTGTCTGTGAAAAC	271
Ovr232_nt	851	CGGCGACGGCGACTTTTGGCCGAGCTCAGGAAGAATGTGTCTGTGAAAAC	900
EpCAM_nt	272	TACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTG	321
Ovr232_nt	901	TACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTG	950
EpCAM_nt	322	TACTTCAGTTGGTGCACAAAATACTGTCAATTTGCTCAAAGC-----	362
Ovr232_nt	951	TACTTCAGTTGGTGCACAAAATACTGTCAATTTGCTCAAAGCGTGAGTAAA	1000
EpCAM_nt	363	-----	362
Ovr232_nt	1001	ATATCCTAATTACCTGTAAGCTTTATTTTGACTTAATACTTCTTTAATTG	1050
EpCAM_nt	363	-----	362
Ovr232_nt	1051	ATGTGCCTTGAGTTGGAAAGAGTTTTATTGGCTTAAATCTGAATCATGTT	1100
EpCAM_nt	363	-----	362
Ovr232_nt	1101	ACAAAGTAAGTGTGGGAACACATAAATTTCAAATAATCTTTGACCCTGGA	1150
EpCAM_nt	363	-----	362
Ovr232_nt	1151	ACTTTAGAGTTAATTTTTTTTTTCCCGTAATCATGAAATCAGTTATTTTT	1200
EpCAM_nt	363	-----TGGCTGCCAAATGTTTGGTGAT	384
Ovr232_nt	1201	CAGTTTGGCATTAAAGTTTCTTTTTTCAGTGGCTGCCAAATGTTTGGTGAT	1250
EpCAM_nt	385	GAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGAGCAAAACCTGAAG	434
Ovr232_nt	1251	GAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGAGCAAAACCTGAAG	1300
EpCAM_nt	435	GGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGACTGCGATGAGAGC	484
Ovr232_nt	1301	GGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGACTGCGATGAGAGC	1350
EpCAM_nt	485	GGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCACGTGCTGGTGTGT	534
Ovr232_nt	1351	GGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCATGTGCTGGTGTGT	1400
EpCAM_nt	535	GAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCT	584
Ovr232_nt	1401	GAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCT	1450
EpCAM_nt	585	CTGAGCGAGTGAGAACCTACTGGATCATCATTGAACTAAAAACACAAAGCA	634
Ovr232_nt	1451	CTGAGCGAGTGAGAACCTACTGGATCATCATTGAACTAAAAACACAAAGCA	1500

FIGURE 1 (continued)

EpCAM_nt	635	AGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGCACTTCAGAAGGA	684
Ovr232_nt	1501	AGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGCACTTCAGAAGGA	1550
EpCAM_nt	685	GATCACAACGCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGT	734
Ovr232_nt	1551	GATCACAACGCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGT	1600
EpCAM_nt	735	ATGAGAATAATGTTATCACTATTGATCTGGTTCAAAATTCCTTCTCAAAAA	784
Ovr232_nt	1601	ATGAGAATAATGTTATCACTATTGATCTGGTTCAAAATTCCTTCTCAAAAA	1650
EpCAM_nt	785	ACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTATTTTGAAAAAGA	834
Ovr232_nt	1651	ACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTATTTTGAAAAAGA	1700
EpCAM_nt	835	TGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATGGACCTGACAGTAA	884
Ovr232_nt	1701	TGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATGGACCTGACAGTAA	1750
EpCAM_nt	885	ATGGGGAACAACCTGGATCTGGATCCTGGTCAAACTTTAATTTATTATGTT	934
Ovr232_nt	1751	ATGGGGAACAACCTGGATCTGGATCCTGGTCAAACTTTAATTTATTATGTT	1800
EpCAM_nt	935	GATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAAAAGCTGGTGTTAT	984
Ovr232_nt	1801	GATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAAAAGCTGGTGTTAT	1850
EpCAM_nt	985	TGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGC	1034
Ovr232_nt	1851	TGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGC	1900
EpCAM_nt	1035	TGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGAGAAGGCTGAGATA	1084
Ovr232_nt	1901	TGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGAGAAGGCTGAGATA	1950
EpCAM_nt	1085	AAGGAGATGGGTGAGATGCATAGGGAACCTCAATGCATAACTATATAATTT	1134
Ovr232_nt	1951	AAGGAGATGGGTGAGATGCATAGGGAACCTCAATGCATAACTATATAATTT	2000
EpCAM_nt	1135	GAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTG	1184
Ovr232_nt	2001	GAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTG	2050
EpCAM_nt	1185	TGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGTTTGTAGTTTAAC	1234
Ovr232_nt	2051	TGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGTTTGTAGTTTAAC	2100
EpCAM_nt	1235	ATCATATATTTGTAATAGTGAAACCTGTACTCAAAATATAAGCAGCTTGA	1284
Ovr232_nt	2101	ATCATATATTTGTAATAGTGAAACCTGTACTCAAAATATAAGCAGCTTGA	2150
EpCAM_nt	1285	AACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCA	1334
Ovr232_nt	2151	AACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCA	2200
EpCAM_nt	1335	GATCTAATGTAAAATCCAGAACTTGGACTCCATCGTTAAAATTTATTTATG	1384
Ovr232_nt	2201	GATCTAATGTAAAATCCAGAACTTGGACTCCATCGTTAAAATTTATTTATG	2250

FIGURE 1 (continued)

EpCAM_nt	1385	TGTAACATTCAAATGTGTGCATTAAATATGCTTCCACAGTAAAATCTGAA	1434
Ovr232_nt	2251	TGTAACATTCAAATGTGTGCATTAAATATGCTTCCACAGTAAAATCTGAA	2300
EpCAM_nt	1435	AAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACTTGAGTCTTGAC	1484
Ovr232_nt	2301	AAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACTTGAGTCTTGAC	2350
EpCAM_nt	1485	ATACATACTTTTTTATGAGCTATGAAATAAAACATTTTAAACTG	1528
Ovr232_nt	2351	ATACATACTTTTTTATGAGCTATGAAATAAAACATTTTAAACTGAA	2396

FIGURE 2

EpCAM_aa	1	MAPPQVLAFGLLLAAATATFAAAQEECV	CENYKLAVNCFVNNNRQCQCTS	50		
Ovr232_aa	1	 MKSV	4		
EpCAM_aa	51	VGAQNTVICSKLAAKCLVMKAEMNGSKLGRRAKPEGALQNN	DGLYDPDCD	100		
Ovr232_aa	5	IFQFGIKVSFSVAAKCLVMKAEMNGSKLGRRAKPEGALQNN	DGLYDPDCD	54		
EpCAM_aa	101	ESGLFKAKQCNGTSTCWCVN	TAGVRRTDKDTEITCSERV	RTYWIIIE	LKH	150
Ovr232_aa	55	ESGLFKAKQCNGTSMCWCVN	TAGVRRTDKDTEITCSERV	RTYWIIIE	LKH	104
EpCAM_aa	151	KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNV	ITIDL	VQNSS	200	
Ovr232_aa	105	KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNV	ITIDL	VQNSS	154	
EpCAM_aa	201	QKTQNDVDIADVAYYFEKDVKGESLFHSSKKMDLTVNGE	QLDLDPGQT	LIY	250	
Ovr232_aa	155	QKTQNDVDIADVAYYFEKDVKGESLFHSSKKMDLTVNGE	QLDLDPGQT	LIY	204	
EpCAM_aa	251	YVDEKAPEFSMQGLKAGVIAIVVVVIAVVAGIVVLVISR	KKRMAKYEKA	300		
Ovr232_aa	205	YVDEKAPEFSMQGLKAGVIAIVVVVIAVVAGIVVLVISR	KKRMAKYEKA	254		
EpCAM_aa	301	EIKEMGEMHRELNA		314		
Ovr232_aa	255	EIKEMGEMHRELNA		268		

FIGURE 3

EpCAM_nt	1		0
Ovr232V1_nt	1	CAGATCTCAATTATCTAATTGCAATTGCAACGAGAACCAAAGCAGGGGAG	50
EpCAM_nt	1		0
Ovr232V1_nt	51	CAGAGACAAACAATTTCTGAGGTAACCAGATGGCTTTATTA ACTCAAGTT	100
EpCAM_nt	1		0
Ovr232V1_nt	101	CTCACCTAAAATTGCCCTCAAGAATCCTGTGGGAATGGGTTGCAGTGGTG	150
EpCAM_nt	1		0
Ovr232V1_nt	151	TGGCCCTGGATTACACAACCGACAGAGCTTCTGAATTCTGAGTGATCTGTA	200
EpCAM_nt	1		0
Ovr232V1_nt	201	CACAAACACACCTCTGCCTGGGTTACACGCCTCCACGTTCTCTATCCAG	250
EpCAM_nt	1		0
Ovr232V1_nt	251	TTCCCGCACCCCTTCCCCCAGGCCCATTCCTTCAAGGCTTCAGAGCAGCG	300
EpCAM_nt	1		0
Ovr232V1_nt	301	CTCCTCCGGTTAAAAGGAAGTCTCAGCACAGAATCTTCAAACCTCCTCGG	350
EpCAM_nt	1		0
Ovr232V1_nt	351	AGGCCACCAAAGATCCCTAACGCCGCCATGGAGACGAAGCACCTGGGGCG	400
EpCAM_nt	1		0
Ovr232V1_nt	401	GGGCGGAGCGGGGCGCGCGGGCCACACCTGTGGAGAGGGCCGCGCCCCA	450
EpCAM_nt	1		0
Ovr232V1_nt	451	ACTGCAGCGCCGGGGCTGGGGGAGGGGAGCCTACTCACTCCCCCAACTCC	500
EpCAM_nt	1	CGGCGAGCGAGCACCTTCGACG	22
Ovr232V1_nt	501	CGGGCGGTGACTCATCAACGAGCACCAGCGGCCAG-----	535
EpCAM_nt	23	CGGTCCGGGGACCCCTCGTCGCTGTCTCTCCGACGCGGACCCGCGTGCC	72
Ovr232V1_nt	536	-----	535
EpCAM_nt	73	CCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCAC	122
Ovr232V1_nt	536	-----	535
EpCAM_nt	123	GCCCTCCCGCGAGTCCCGGGCCCTCCCGCGCCCTCTTCTCGGCGCGCG	172
Ovr232V1_nt	536	-----	535
EpCAM_nt	173	CGCAGCATGGCGCCCCCGCAGGTCTCGCGTTCGGGCTTCTGCTTGCCGC	222
Ovr232V1_nt	536	-----	535

FIGURE 3 (continued)

EpCAM_nt	223	GGCGACGGCGACTTTTGCCGCAGCTCAGGAAGAATGTGTCTGTGAAAAC	272
Ovr232V1_nt	536	-----AGAATGTGTCTGTGAAAAC	555
EpCAM_nt	273	ACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTGT	322
Ovr232V1_nt	556	ACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTGT	605
EpCAM_nt	323	ACTTCAGTTGGTGACAAAATACTGTCAATTGCTCAAAGCTGGCTGCCAA	372
Ovr232V1_nt	606	ACTTCAGTTGGTGACAAAATACTGTCAATTGCTCAAAGCTGGCTGCCAA	655
EpCAM_nt	373	ATGTTTGGTGATGAAGGCAGAAATGAATGGCTCAAACTTTGGGAGAAGAG	422
Ovr232V1_nt	656	ATGTTTGGTGATGAAGGCAGAAATGAATGGCTCAAACTTTGGGAGAAGAG	705
EpCAM_nt	423	CAAAACCTGAAGGGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGAC	472
Ovr232V1_nt	706	CAAAACCTGAAGGGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGAC	755
EpCAM_nt	473	TGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCAC	522
Ovr232V1_nt	756	TGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCAT	805
EpCAM_nt	523	GTGCTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTG	572
Ovr232V1_nt	806	GTGCTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTG	855
EpCAM_nt	573	AAATAACCTGCTCTGAGCGAGTGAGAACCCTACTGGATCATCATTGAACTA	622
Ovr232V1_nt	856	AAATAACCTGCTCTGAGCGAGTGAGAACCCTACTGGATCATCATTGAACTA	905
EpCAM_nt	623	AAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGC	672
Ovr232V1_nt	906	AAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGC	955
EpCAM_nt	673	ACTTCAGAAGGAGATCACAACGCGTTATCAACTGGATCCAAAATTTATCA	722
Ovr232V1_nt	956	ACTTCAGAAGGAGATCACAACGCGTTATCAACTGGATCCAAAATTTATCA	1005
EpCAM_nt	723	CGAGTATTTGTATGAGAATAATGTTATCACTATTGATCTGGTTCAAAT	772
Ovr232V1_nt	1006	CGAGTATTTGTATGAGAATAATGTTATCACTATTGATCTGGTTCAAAT	1055
EpCAM_nt	773	TCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTA	822
Ovr232V1_nt	1056	TCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTA	1105
EpCAM_nt	823	TTTTGAAAAAGATGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATGG	872
Ovr232V1_nt	1106	TTTTGAAAAAGATGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATGG	1155
EpCAM_nt	873	ACCTGACAGTAAATGGGGAACAACCTGGATCTGGATCCTGGTCAAACCTTA	922
Ovr232V1_nt	1156	ACCTGACAGTAAATGGGGAACAACCTGGATCTGGATCCTGGTCAAACCTTA	1205
EpCAM_nt	923	ATTTATTATGTTGATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAAA	972
Ovr232V1_nt	1206	ATTTATTATGTTGATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAAA	1255

FIGURE 3 (continued)

EpCAM_nt	973	AGCTGGTGTATTATTGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTG	1022
Ovr232V1_nt	1256	AGCTGGTGTATTATTGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTG	1305
EpCAM_nt	1023	GAATTGTTGTGCTGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGAG	1072
Ovr232V1_nt	1306	GAATTGTTGTGCTGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGAG	1355
EpCAM_nt	1073	AAGGCTGAGATAAAGGAGATGGGTGAGATGCATAGGGAACCTCAATGCATA	1122
Ovr232V1_nt	1356	AAGGCTGAGATAAAGGAGATGGGTGAGATGCATAGGGAACCTCAATGCATA	1405
EpCAM_nt	1123	ACTATATAATTTGAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAA	1172
Ovr232V1_nt	1406	ACTATATAATTTGAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAA	1455
EpCAM_nt	1173	ATTACAAATGTGTGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGTT	1222
Ovr232V1_nt	1456	ATTACAAATGTGTGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGTT	1505
EpCAM_nt	1223	TGTTAGTTTAACATCATATATTTGTAATAGTGAAACCTGTACTCAAAATA	1272
Ovr232V1_nt	1506	TGTTAGTTTAACATCATATATTTGTAATAGTGAAACCTGTACTCAAAATA	1555
EpCAM_nt	1273	TAAGCAGCTTGAAACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGT	1322
Ovr232V1_nt	1556	TAAGCAGCTTGAAACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGT	1605
EpCAM_nt	1323	CTTATATATGCAGATCTAATGTAAAATCCAGAACTTGGACTCCATCGTTA	1372
Ovr232V1_nt	1606	CTTATATATGCAGATCTAATGTAAAATCCAGAACTTGGACTCCATCGTTA	1655
EpCAM_nt	1373	AAATTATTTATGTGTAACATTCAAATGTGTGCATTAAATATGCTTCCACA	1422
Ovr232V1_nt	1656	AAATTATTTATGTGTAACATTCAAATGTGTGCATTAAATATGCTTCCACA	1705
EpCAM_nt	1423	GTAAAATCTGAAAAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACT	1472
Ovr232V1_nt	1706	GTAAAATCTGAAAAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACT	1755
EpCAM_nt	1473	TGAGTCTTGACATACATACTTTTTTATGAGCTATGAAATAAAACATTTT	1522
Ovr232V1_nt	1756	TGAGTCTTGACATACATACTTTTTTATGAGCTATGAAATAAAACATTTT	1805
EpCAM_nt	1523	AAACTG	1528
Ovr232V1_nt	1806	AAACTGAA	1813

FIGURE 4

EpCAM_aa	1	MAPPQVLAFGLLLAAATATFAA	22
		
Ovr232V1_aa	1	METKHLGRGGAGRAGPHLWRGPRPNCSAGAGGGEPHSPNSRAVTHQRAP	50
EpCAM_aa	23	AQEECVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAACKLVMKAE	72
		..	
Ovr232V1_aa	51	AARECVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAACKLVMKAE	100
EpCAM_aa	73	MNGSKLGRRRAKPEGALQNNNDGLYDPDCDESGLFKAKQCNGTSTCWCVNTA	122
		.	
Ovr232V1_aa	101	MNGSKLGRRRAKPEGALQNNNDGLYDPDCDESGLFKAKQCNGTSMCWCVNTA	150
EpCAM_aa	123	GVRRTDKDTEITCSERVRTYWIIIELEKHKAREKPYDSKSLRTALQKEITT	172
Ovr232V1_aa	151	GVRRTDKDTEITCSERVRTYWIIIELEKHKAREKPYDSKSLRTALQKEITT	200
EpCAM_aa	173	RYQLDPKFITSILYENNVITIDLQNSSQKTQNDVDIADVAYYFEKDVKG	222
Ovr232V1_aa	201	RYQLDPKFITSILYENNVITIDLQNSSQKTQNDVDIADVAYYFEKDVKG	250
EpCAM_aa	223	ESLFHSHKMDLTVNGEQLDLDPGQTLIIYYVDEKAPEFSMQGLKAGVIAVI	272
Ovr232V1_aa	251	ESLFHSHKMDLTVNGEQLDLDPGQTLIIYYVDEKAPEFSMQGLKAGVIAVI	300
EpCAM_aa	273	VVVVIAVVAGIVVLVISRKKRMAKYEKAEIKEMGEMHRELNA	314
Ovr232V1_aa	301	VVVVIAVVAGIVVLVISRKKRMAKYEKAEIKEMGEMHRELNA	342

FIGURE 5

EpCAM_nt	1		0
Ovr232V2_nt	1	CAGATCTCAATTATCTAATTGCAATTGCAACGAGAACCAAAGCAGGGGAG	0
EpCAM_nt	1		0
Ovr232V2_nt	51	CAGAGACAAACAATTTCTGAGGTAACCAGATGGCTTTATTAACTCAAGTT	100
EpCAM_nt	1		0
Ovr232V2_nt	101	CTCACCTAAAATTGCCCTCAAGAATCCTGTGGGAATGGGTTGCAGTGGTG	150
EpCAM_nt	1		0
Ovr232V2_nt	151	TGGCCCTGGATTACAAACCGACAGAGCTTCTGAATTCTGAGTGATCTGTA	200
EpCAM_nt	1		0
Ovr232V2_nt	201	CACAAACACACCTCTGCCTGGGTTACACGCCTCCACGTTCTCTATCCAG	250
EpCAM_nt	1		0
Ovr232V2_nt	251	TTCCCGCACCCCTTCCCCCAGGCCCATTCCTTCAAGGCTTCAGAGCAGCG	300
EpCAM_nt	1		0
Ovr232V2_nt	301	CTCCTCCGGTTAAAAGGAAGTCTCAGCACAGAATCTTCAAACCTCCTCGG	350
EpCAM_nt	1		0
Ovr232V2_nt	351	AGGCCACCAAAGATCCCTAACGCCGCCATGGAGACGAAGCACCTGGGGCG	400
EpCAM_nt	1		0
Ovr232V2_nt	401	GGGCGGAGCGGGGCGCGGGGCCACACCTGTGGAGAGGGCCGCGCCCCA	450
EpCAM_nt	1		0
Ovr232V2_nt	451	ACTGCAGCGCCGGGGCTGGGGAGGGGAGCCTACTCACTCCCCAACTCC	500
EpCAM_nt	1		0
Ovr232V2_nt	501	CGGGCGGTGACTCATCAACGAGCACCAGCGGCCAGAGGTGAGCAGTCCCG	550
EpCAM_nt	1		0
Ovr232V2_nt	551	GGAAGGGGCCGAGAGGCGGGGCCGCCAGGTCGGGCAGGTGTGCGCTCCGC	600
EpCAM_nt	1	CGGCGAGCGAGCACCTTCGAC	21
Ovr232V2_nt	601	 CCCGCCGCGCGCACAGAGCGCTAGTCCTTCGGCGAGCGAGCACCTTCGAC	650
EpCAM_nt	22	GCGGTCCGGGGACCCCTCGTCGCTGTCTCCCGACGCGGACCCGCGTGC	71
Ovr232V2_nt	651	 GCGGTCCGGGGACCCCTCGTCGCTGTCTCCCGACGCGGACCCGCGTGC	700
EpCAM_nt	72	CCCAGGCCTCGCGCTGCCCGGCGGGCTCCTCGTGTCCCACTCCCGGCGCA	21
Ovr232V2_nt	701	 CCCAGGCCTCGCGCTGCCCGGCGGGCTCCTCGTGTCCCACTCCCGGCGCA	750

FIGURE 5 (continued)

EpCAM_nt	122	CGCCCTCCCGCGAGTCCCGGGCCCTCCCGCGCCCTCTTCTCGGCGCGC	171
Ovr232V2_nt	751	CGCCCTCCCGCGAGTCCCGGGCCCTCCCGCGCCCTCTTCTCGGCGCGC	800
EpCAM_nt	172	GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG	221
Ovr232V2_nt	801	GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG	850
EpCAM_nt	222	CGGCGACGGCGACTTTTGCCGCGAGCTCAGGAAGAATGTGTCTGTGAAAAC	271
Ovr232V2_nt	851	CGGCGACGGCGACTTTTGCCGCGAGCTCAGGAAGAATGTGTCTGTGAAAAC	900
EpCAM_nt	272	TACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTG	321
Ovr232V2_nt	901	TACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTG	950
EpCAM_nt	322	TACTTCAGTTGGTGCACAAAATACTGTCATTTGCTCAAAGCTGGCTGCCA	371
Ovr232V2_nt	951	TACTTCAGTTGGTGCACAAAATACTGTCATTTGCTCAAAGCTGGCTGCCA	1000
EpCAM_nt	372	AATGTTTGGTGATGAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGA	421
Ovr232V2_nt	1001	AATGTTTGGTGATGAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGA	1050
EpCAM_nt	422	GCAAAACCTGAAGGGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGA	471
Ovr232V2_nt	1051	GCAAAACCTGAAGGGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGA	1100
EpCAM_nt	472	CTGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCA	521
Ovr232V2_nt	1101	CTGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCA	1150
EpCAM_nt	522	CGTGCTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACT	571
Ovr232V2_nt	1151	TGTGCTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACT	1200
EpCAM_nt	572	GAAATAACCTGCTCTGAGCGAGTGAGAACCTACTGGATCATCATTGAACT	621
Ovr232V2_nt	1201	GAAATAACCTGCTCTGAGCGAGTGAGAACCTACTGGATCATCATTGAACT	1250
EpCAM_nt	622	AAAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTG	671
Ovr232V2_nt	1251	AAAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTG	1300
EpCAM_nt	672	CACTTCAGAAGGAGATCACAACGCGTTATCAACTGGATCCAAAATTTATC	721
Ovr232V2_nt	1301	CACTTCAGAAGGAGATCACAACGCGTTATCAACTGGATCCAAAATTTATC	1350
EpCAM_nt	722	ACGAGTATTTTGTATGAGAATAATGTTATCACTATTGATCTGGTTCAAAA	771
Ovr232V2_nt	1351	ACGAGTATTTTGTATGAGAATAATGTTATCACTATTGATCTGGTTCAAAA	1400
EpCAM_nt	772	TTCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATT	821
Ovr232V2_nt	1401	TTCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATT	1450
EpCAM_nt	822	ATTTTGAAAAAGATGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATG	871
Ovr232V2_nt	1451	ATTTTGAAAAAGATGATGTGAGTATCATCTTCTTTATTCCTGTGTTTCAGG	1500

FIGURE 5 (continued)

EpCAM_nt	872	GACCTGACAGTAAATGGGGAACAACTGGATCTGGATCCTGGTCAAACTTT	921
		
Ovr232V2_nt	1501	AATGTAGTCTATCATGCCTCAATGAATTAAATATATTTTCATCACCTTTTT	1550
EpCAM_nt	922	AATTTATTATGTTGATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAA	971
		
Ovr232V2_nt	1551	ATCCACTTACAGATCAACCAAATGGTTTCGCTGCTGCCGTTAATTTTGCTCC	1600
EpCAM_nt	972	AAGCTGGTGTATTGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCT	1021
		
Ovr232V2_nt	1601	TCCCTGTCACTCACATGCATCTTGCTTGTGTTGTATATTTATGCCTCTTAT	1650
EpCAM_nt	1022	GGAATTGTTGTGCTGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGA	1071
		
Ovr232V2_nt	1651	CAAATTGTTCTGCCTAAATATCTCCCTCTTCTTATAATTCTTATTTA	1700
EpCAM_nt	1072	GAAGGCTGAGATAAAGGAGATGGGTGAGATGCATAGGGAACCTCAATGCAT	1121
		
Ovr232V2_nt	1701	TTATCTACTTGGTGGTTACTTAGTTTGTGCATATATGCTCCCCTATG---	1747
EpCAM_nt	1122	AACTATATAATTTGAAGATTATAGAAGAAGGGAAATAGCAAATGGACACA	1171
		
Ovr232V2_nt	1748	ATATTTATAATTTACACAAATAAAAGTCTGTAAAAAAGACTGTAACCTGA	1797
EpCAM_nt	1172	AATTACAAATGTGTGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGT	1221
		
Ovr232V2_nt	1798	TATGATTAAAAATATTTTGTGAACTTTAATATATTATAGTGAGGT	1843
EpCAM_nt	1222	TTGTTAGTTTAAACATCATATATTTGTAATAGTGAAACCTGTACTCAAAAT	1271
Ovr232V2_nt	1844		1843
EpCAM_nt	1272	ATAAGCAGCTTGAAACTGGCTTTACCAATCTTGAAATTTGACCACAAGTG	1321
Ovr232V2_nt	1844		1843
EpCAM_nt	1322	TCTTATATATGCAGATCTAATGTAAATCCAGAACTTGGACTCCATCGTT	1371
Ovr232V2_nt	1844		1843
EpCAM_nt	1372	AAAATTATTTATGTGTAACATTCAAATGTGTGCATTAAATATGCTTCCAC	1421
Ovr232V2_nt	1844		1843
EpCAM_nt	1422	AGTAAAACTGAAAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTAC	1471
Ovr232V2_nt	1844		1843
EpCAM_nt	1472	TTGAGTCTTGTAACATACATACTTTTTTATGAGCTATGAAATAAACATTT	1521
Ovr232V2_nt	1844		1843
EpCAM_nt	1522	TAAACTG	1528
Ovr232V2_nt	1844		1843

FIGURE 6

EpCAM_aa	1	MAPPQVLAFGLLLAAATATFAAAQEECVCENYKLAVNCFVNNNRQCQCTS	50
Ovr232V2_aa	1	MAPPQVLAFGLLLAAATATFAAAQEECVCENYKLAVNCFVNNNRQCQCTS	50
EpCAM_aa	51	VGAQNTVICSKLAAKCLVMKAEMNGSKLGRRAKPEGALQNNGLYDPDCD	100
Ovr232V2_aa	51	VGAQNTVICSKLAAKCLVMKAEMNGSKLGRRAKPEGALQNNGLYDPDCD	100
EpCAM_aa	101	ESGLFKAKQCNGTSTCWCVNNTAGVRRTDKDTEITCSERVRTYWIIELKH	150
Ovr232V2_aa	101	ESGLFKAKQCNGTSMCWCVNNTAGVRRTDKDTEITCSERVRTYWIIELKH	150
EpCAM_aa	151	KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNVITIDLQNSS	200
Ovr232V2_aa	151	KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNVITIDLQNSS	200
EpCAM_aa	201	QKTQNDVDIADVAYYFEKDVKGESLFHKKMDLTVNGEQDLDPGQTLIY	250
Ovr232V2_aa	201	QKTQNDVDIADVAYYFEKDDVSIIFIPVFRNVVYHASMN	240
EpCAM_aa	251	YVDEKAPEFSMQGLKAGVIAVIVVVVIAVVAGIVVLVISRKKRMAYEKA	300
Ovr232V2_aa	241		240
EpCAM_aa	301	EIKEMGEMHRELNA	314
Ovr232V2_aa	241		240

FIGURE 7

EpCAM_nt	1		0
Ovr232V3_nt	1	CAGATCTCAATTATCTAATTGCAATTGCAACGAGAACCAAAGCAGGGGAG	50
EpCAM_nt	1		0
Ovr232V3_nt	51	CAGAGACAAACAATTTCTGAGGTAACCAGATGGCTTTATTAAGTCAAGTT	100
EpCAM_nt	1		0
Ovr232V3_nt	101	CTCACCTAAAATTGCCCTCAAGAATCCTGTGGGAATGGGTTGCAGTGGTG	150
EpCAM_nt	1		
Ovr232V3_nt	151	TGGCCCTGGATTCAACAACCGACAGAGCTTCTGAATTCTGAGTGATCTGTA	200
EpCAM_nt	1		0
Ovr232V3_nt	201	CACAAACACACCTCTGCCTGGGTTACACGCCTCCACGTTCTCTATCCAG	50
EpCAM_nt	1		0
Ovr232V3_nt	251	TTCCCGCACCCCTTCCCCCAGGCCCCATTCTTCAAGGCTTCAGAGCAGCG	300
EpCAM_nt	1		0
Ovr232V3_nt	301	CTCCTCCGGTTAAAAGGAAGTCTCAGCACAGAATCTTCAAACCTCCTCGG	350
EpCAM_nt	1		0
Ovr232V3_nt	351	AGGCCACCAAAGATCCCTAACGCCGCCATGGAGACGAAGCACCTGGGGCG	400
EpCAM_nt	1		0
Ovr232V3_nt	401	GGGCGGAGCGGGGCGCGGGGCCACACCTGTGGAGAGGGCCGCGCCCCA	450
EpCAM_nt	1		0
Ovr232V3_nt	451	ACTGCAGCGCCGGGGCTGGGGGAGGGGAGCCTACTCACTCCCCAACTCC	500
EpCAM_nt	1		0
Ovr232V3_nt	501	CGGGCGGTGACTCATCAACGAGCACAGCGGCCAGAGGTGAGCAGTCCCCG	550
EpCAM_nt	1		0
Ovr232V3_nt	551	GGAAGGGGCCGAGAGGCGGGGCCGAGGTGCGGCAGGTGTGCGCTCCGC	600
EpCAM_nt	1	CGGCGAGCGAGCACCTTCGAC	21
Ovr232V3_nt	601	CCCCCGCGCGCACAGAGCGCTAGTCCTTCGGCGAGCGAGCACCTTCGAC	650
EpCAM_nt	22	GCGGTCCGGGGACCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGC	71
Ovr232V3_nt	651	GCGGTCCGGGGACCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGC	700
EpCAM_nt	72	CCCAGGCCTCGCGCTGCCCGGCGGCTCCTCGTGTCCCACTCCCGGCGCA	121
Ovr232V3_nt	701	CCCAGGCCTCGCGCTGCCCGGCGGCTCCTCGTGTCCCACTCCCGGCGCA	750

FIGURE 7 (continued)

EpCAM_nt	122	CGCCCTCCCGCGAGTCCCGGGCCCCCTCCCGCGCCCCCTCTTCTCGGCGCGC	171
Ovr232V3_nt	751	CGCCCTCCCGCGAGTCCCGGGCCCCCTCCCGCGCCCCCTCTTCTCGGCGCGC	800
EpCAM_nt	172	GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG	221
Ovr232V3_nt	801	GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG	850
EpCAM_nt	222	CGGCGACGGCGACTTTTGCCGCGAGCTCAGGAA-----	253
Ovr232V3_nt	851	CGGCGACGGCGACTTTTGCCGCGAGCTCAGGAAGGTGAGGCGCGGATTGGA	900
EpCAM_nt	254	-----	253
Ovr232V3_nt	901	GCAGAGTTGTGGAGCTGGGCTGGGCTGGGGGGCAGCGCCCCCGGCCCTC	950
EpCAM_nt	254	-----	253
Ovr232V3_nt	951	GGCCCCGAAACGGGCATAATAGGGAGGGGACCAAGAGGCCGCGCTTTCC	1000
EpCAM_nt	254	-----	253
Ovr232V3_nt	1001	AGCGTGGAGACCGGACGGTGCGGCCGTGCTCCGGCTCAGGCCCTCCGCGC	1050
EpCAM_nt	254	-----	253
Ovr232V3_nt	1051	GGTAGGAAACGGCGAGGGCCGTCCCGGGGAGCAGCCTCACTTCGCAGCTT	1100
EpCAM_nt	254	-----GAATGTGTCTGTGAAACTACAAGCTGGCCGTAAACTGCT	293
Ovr232V3_nt	1101	TGCTCGCCTTGAATGTGTCTGTGAAACTACAAGCTGGCCGTAAACTGCT	1150
EpCAM_nt	294	TTGTGAATAATAATCGTCAATGCCAGTGTACTTCAGTTGGTGACAAAAAT	343
Ovr232V3_nt	1151	TTGTGAATAATAATCGTCAATGCCAGTGTACTTCAGTTGGTGACAAAAAT	1200
EpCAM_nt	344	ACTGTCATTTGCTCAAAGCTGGCTGCCAAATGTTTGGTGTGAAGGCAGA	393
Ovr232V3_nt	1201	ACTGTCATTTGCTCAAAGCTGGCTGCCAAATGTTTGGTGTGAAGGCAGA	1250
EpCAM_nt	394	AATGAATGGCTCAAACTTGGGAGAAGAGCAAAACCTGAAGGGGCCCTCC	443
Ovr232V3_nt	1251	AATGAATGGCTCAAACTTGGGAGAAGAGCAAAACCTGAAGGGGCCCTCC	1300
EpCAM_nt	444	AGAACAATGATGGGCTTTATGATCCTGACTGCGATGAGAGCGGGCTCTTT	493
Ovr232V3_nt	1301	AGAACAATGATGGGCTTTATGATCCTGACTGCGATGAGAGCGGGCTCTTT	1350
EpCAM_nt	494	AAGGCCAAGCAGTGCAACGGCACCTCCACGTGCTGGTGTGTGAACACTGC	543
Ovr232V3_nt	1351	AAGGCCAAGCAGTGCAACGGCACCTCCATGTGCTGGTGTGTGAACACTGC	1400
EpCAM_nt	544	TGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCTCTGAGCGAG	593
Ovr232V3_nt	1401	TGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCTCTGAGCGAG	1450
EpCAM_nt	594	TGAGAACCTACTGGATCATCATTGAACTAAAACACAAAGCAAGAGAAAAA	643
Ovr232V3_nt	1451	TGAGAACCTACTGGATCATCATTGAACTAAAACACAAAGCAAGAGAAAAA	1500

FIGURE 7 (continued)

EpCAM_nt	644	CCTTATGATAGTAAAAGTTTGCGGACTGCACTTCAGAAGGAGATCACAAC	693
Ovr232V3_nt	1501	CCTTATGATAGTAAAAGTTTGCGGACTGCACTTCAGAAGGAGATCACAAC	1550
EpCAM_nt	694	GCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGTATGAGAATA	743
Ovr232V3_nt	1551	GCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGTATGAGAATA	1600
EpCAM_nt	744	ATGTTATCACTATTGATCTGGTTCAAAATCTTCTCAAAAAACTCAGAAT	793
Ovr232V3_nt	1601	ATGTTATCACTATTGATCTGGTTCAAAATCTTCTCAAAAAACTCAGAAT	1650
EpCAM_nt	794	GATGTGGACATAGCTGATGTGGCTTATTATTTGAAAAAGATGTTAAAGG	843
Ovr232V3_nt	1651	GATGTGGACATAGCTGATGTGGCTTATTATTTGAAAAAGATGTTAAAGG	1700
EpCAM_nt	844	TGAATCCTTGTTTCATTCTAAGAAAATGGACCTGACAGTAAATGGGGAAC	893
Ovr232V3_nt	1701	TGAATCCTTGTTTCATTCTAAGAAAATGGACCTGACAGTAAATGGGGAAC	1750
EpCAM_nt	894	AACTGGATCTGGATCCTGGTCAAACTTTAATTTATTATGTTGATGAAAAA	943
Ovr232V3_nt	1751	AACTGGATCTGGATCCTGGTCAAACTTTAATTTATTATGTTGATGAAAAA	1800
EpCAM_nt	944	GCACCTGAATTCTCAATGCAGGGTCTAAAAGCTGGTGTTATTGCTGTTAT	993
Ovr232V3_nt	1801	GCACCTGAATTCTCAATGCAGGGTCTAAAAGCTGGTGTTATTGCTGTTAT	1850
EpCAM_nt	994	TGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGCTGGTTATTT	1043
Ovr232V3_nt	1851	TGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGCTGGTTATTT	1900
EpCAM_nt	1044	CCAGAAAGAAGAGAATGGCAAAGTATGAGAAGGCTGAGATAAAGGAGATG	1093
Ovr232V3_nt	1901	CCAGAAAGAAGAGAATGGCAAAGTATGAGAAGGCTGAGATAAAGGAGATG	1950
EpCAM_nt	1094	GGTGAGATGCATAGGGAACTCAATGCATAACTATATAATTTGAAGATTAT	1143
Ovr232V3_nt	1951	GGTGAGATGCATAGGGAACTCAATGCATAACTATATAATTTGAAGATTAT	2000
EpCAM_nt	1144	AGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTGTGTGCGTGG	1193
Ovr232V3_nt	2001	AGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTGTGTGCGTGG	2050
EpCAM_nt	1194	GACGAAGACATCTTTGAAGGTCATGAGTTTGTAGTTTAACATCATATAT	1243
Ovr232V3_nt	2051	GACGAAGACATCTTTGAAGGTCATGAGTTTGTAGTTTAACATCATATAT	2100
EpCAM_nt	1244	TTGTAATAGTGAAACCTGTACTCAAAATATAAGCAGCTTGAAACTGGCTT	1293
Ovr232V3_nt	2101	TTGTAATAGTGAAACCTGTACTCAAAATATAAGCAGCTTGAAACTGGCTT	2150
EpCAM_nt	1294	TACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCAGATCTAATG	1343
Ovr232V3_nt	2151	TACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCAGATCTAATG	2200
EpCAM_nt	1344	TAAAATCCAGAACTTGGACTCCATCGTTAAAATTATTTATGTGTAACATT	1393
Ovr232V3_nt	2201	TAAAATCCAGAACTTGGACTCCATCGTTAAAATTATTTATGTGTAACATT	2250

FIGURE 7 (continued)

EpCAM_nt	1394	CAAATGTGTGCATTAAATATGCTTCCACAGTAAATCTGAAAAACTGATT	1443
Ovr232V3_nt	2251	CAAATGTGTGCATTAAATATGCTTCCACAGTAAATCTGAAAAACTGATT	2300
EpCAM_nt	1444	TGTGATTGAAAGCTGCCTTCTATTTACTTGAGTCTTGTACATACATACT	1493
Ovr232V3_nt	2301	TGTGATTGAAAGCTGCCTTCTATTTACTTGAGTCTTGTACATACATACT	2350
EpCAM_nt	1494	TTTTTATGAGCTATGAAATAAAACATTTTAACTG	1528
Ovr232V3_nt	2351	TTTTTATGAGCTATGAAATAAAACATTTTAACTGAA	2387

FIGURE 8

EpCAM_aa	1	MAPPQVLAFGLLLAAATATFAAAQE-----	25
Ovr232V3_aa	1	MAPPQVLAFGLLLAAATATFAAAQEGEARIGAKLWSWAGLGGNGPRPSAP	50
EpCAM_aa	26	-----	25
Ovr232V3_aa	51	ETGIIGRGPRGRAFQRGDRTVRPCSGSGPPRGRKRRGPSRGAASLRSFAR	100
EpCAM_aa	26	-ECVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAACKCLVMKAEMN	74
Ovr232V3_aa	101	LECVENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAACKCLVMKAEMN	150
EpCAM_aa	75	GSKLGRRRAKPEGALQNNDGLYDPDCDESGLFKAKQCNGTSTCWCVNTAGV	124
Ovr232V3_aa	151	GSKLGRRRAKPEGALQNNDGLYDPDCDESGLFKAKQCNGTSMCWCVNTAGV	200
EpCAM_aa	125	RRTDKDTEITCSERVRTYWIIIELKHKAREKPYDSKSLRTALQKEITTRY	174
Ovr232V3_aa	201	RRTDKDTEITCSERVRTYWIIIELKHKAREKPYDSKSLRTALQKEITTRY	250
EpCAM_aa	175	QLDPKFITSILYENNVITIDLVQNSSQKTQNDVDIADVAYYFEKDVKGES	224
Ovr232V3_aa	251	QLDPKFITSILYENNVITIDLVQNSSQKTQNDVDIADVAYYFEKDVKGES	300
EpCAM_aa	225	LFHSKKMDLTVNGEQDLDPGQTLIIYYVDEKAPEFSMQGLKAGVIAVIVV	274
Ovr232V3_aa	301	LFHSKKMDLTVNGEQDLDPGQTLIIYYVDEKAPEFSMQGLKAGVIAVIVV	350
EpCAM_aa	275	VVIAVVAGIVVLVISRKKRMAYEKAIEIKEMGEMHRELNA	314
Ovr232V3_aa	351	VVIAVVAGIVVLVISRKKRMAYEKAIEIKEMGEMHRELNA	390

Ovr107	1	AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG	50
455_051.nt.2	1		0
Ovr107	51	GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG	100
455_051.nt.2	1		0
Ovr107	101	ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG	150
455_051.nt.2	1		0
Ovr107	151	GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC	200
455_051.nt.2	1		0
Ovr107	201	GGGCCGCGGGGAGCGCAGGGCGGCGGCGCTCAGGGCCACGCAGGAGGAGT	250
455_051.nt.2	1		0
Ovr107	251	TGCAGCGCGACCGCTCGCCCGCGCTGAGACCCCGCCCCCTGCAGCGCCGC	300
455_051.nt.2	1		0
Ovr107	301	CCGTCACTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGGGGCCGCGG	350
455_051.nt.2	1		0
Ovr107	351	ACGACCCCAGGCGAAGCCCATTCCCAGGCAGAGGAGGCGCAGAGGCCTG	400
455_051.nt.2	1		0
Ovr107	401	AGCCGGTGGGGACCTCGAGCAA-----CGCTGACTC----GGC-CTCC	438
455_051.nt.2	1	GATCTCTTCCAAATGTCCCGCT--CTCCCAGGCTCTCC	38
Ovr107	439	CCGGACCTGGGTCC-----CCGGGGTCTTGACCTGGCGGTTCTGCA	479
455_051.nt.2	39	CC-----TCCCGCCACTTGCCAGGG--CTGACCT-----CA	67
Ovr107	480	-GGCGGAGCGGGAAGTGACATCCTGAACCACGTGTTTCGACGACGTAGAG	528
455_051.nt.2	68	CCGC-----CAT-CTTAACCGGGTGTCC-----	89
Ovr107	529	AGCTTTGTATCGAGGCTGCAGAAGTCGGCGGAGGCGGCCAGGGTGCTGGA	578
455_051.nt.2	90	ACCTCTCT-----CTGC-----CTGCC-TGGTGCTGGC	116
Ovr107	579	GCACCGGGAACCGCGCCGCAGGAGCCGGCGCCGGGCGGCT----GGGGAG	624
455_051.nt.2	117	CC-----CGCGTCCCA-TCGCC-GCGCCCGTCTGCTCCCTCAGAG	156
Ovr107	625	GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	674
455_051.nt.2	157	GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	206
Ovr107	675	CGTGCTGCAGAAGATCAAGTACGCCCTTCAGCCTGCTGGCCCGGCTGCGCG	724
455_051.nt.2	207	CGTGCTGCAGAAGATCAAGTACGCCCTTCAGCCTGCTGGCCCGGCTGCGCG	256

FIGURE 9 (continued)

Ovr107	725	GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG	774
455_051.nt.2	257	GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG	306
Ovr107	775	CCTCTGCAGATGATTGTGAACACGTCGGGGGGCCGGAGTTTCGCGAGCAG	824
455_051.nt.2	307	CCTCTGCAGATGATTGTGAACACGTCGGGGGGCCGGAGTTTCGCGAGCAG	356
Ovr107	825	TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA	874
455_051.nt.2	357	TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA	406
Ovr107	875	ACGTCACCTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG	924
455_051.nt.2	407	ACGTCACCTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG	456
Ovr107	925	ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC	974
455_051.nt.2	457	ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC	506
Ovr107	975	CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG	1024
455_051.nt.2	507	CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG	556
Ovr107	1025	CCTGGGAGGACCCAGTTGAGAAAACAGCTACAGCACGAGCGGAGGCGCCGG	1074
455_051.nt.2	557	CCTGGGAGGACCCAGTTGAGAAAACAGCTACAGCACGAGCGGAGGCGCCGG	606
Ovr107	1075	CAGCAAAGCGCCCCCAGGTGCGTGTCAATGGTCACCGAGACTTGGAGCC	1124
455_051.nt.2	607	CAGCAAAGCGCCCCCAGGTGCGTGTCAATGGTCACCGAGACTTGGAGCC	656
Ovr107	1125	AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT	1174
455_051.nt.2	657	AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT	706
Ovr107	1175	GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCCGGTCAAGCAG	1224
455_051.nt.2	707	GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCCGGTCAAGCAG	756
Ovr107	1225	CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAAGGTTTCG	1274
455_051.nt.2	757	CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAAGGTTTCG	806
Ovr107	1275	GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT	1324
455_051.nt.2	807	GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT	856
Ovr107	1325	ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC	1374
455_051.nt.2	857	ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC	906
Ovr107	1375	AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT	1424
455_051.nt.2	907	AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT	956
Ovr107	1425	GGCTCGGCCCCGCTGGGACAGGCCCGCTGGGACAGCTGCGATAGCCTCA	1474
455_051.nt.2	957	GGCTCGGCCCCGCTGGGACAGGCCCGCTGGGACAGCTGCGATAGCCTCA	1006

FIGURE 9 (continued)

Ovr107 1475 ACGGCTTGGACCCAGCGAGAAGGAGAAATTCTCCAGATGCTCATCGTC 1524
|||||
455_051.nt. 21007 ACGGCTTGGACCCAGCGAGAAGGAGAAATTCTCCAGATGCTCATCGTC 1056
Ovr107 1525 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1574
|||||
455_051.nt.2 1057 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1106
Ovr107 1575 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCCGGGCTCGG 1624
|||||
455_051.nt.2 1107 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCCGGGCTCGG 1156
Ovr107 1625 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1674
|||||
455_051.nt.2 1157 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCG-- 1204
Ovr107 1675 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1724
455_051.nt.2 1205 ----- 1204
Ovr107 1725 GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1774
|||.|||||
455_051.nt.2 1205 GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1254
Ovr107 1775 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTC 1824
|||||
455_051.nt.2 1255 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTC 1304
Ovr107 1825 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1874
|||||
455_051.nt.2 1305 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1354
Ovr107 1875 GGAAATGGAGGTCATTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1924
|||||
455_051.nt.2 1355 GGAAATGGAGGTCATTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1404
Ovr107 1925 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1974
|||||
455_051.nt.2 1405 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1454
Ovr107 1975 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 2024
|||||
455_051.nt.2 1455 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 1504
Ovr107 2025 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 2074
|||||
455_051.nt.2 1505 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 1554
Ovr107 2075 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 2124
|||||
455_051.nt.2 1555 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 1604
Ovr107 2125 AGACCCCCGAGAGGGTGAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 2174
|||||
455_051.nt.2 1605 AGACCCCCGAGAGGGTGAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 1654
Ovr107 2175 AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAAAAAAAA 2221
|||||
455_051.nt.2 1655 AGCCTATAAACAGCCTCCGTGCTTAGCAG 1683

Ovr107_aa	1	MNRTWPRIIWGSSQDEAELIREDIQGALHNYRSGRGERRAAALRATQEEL	50
455_051.aa.3	1		0
Ovr107_aa	51	QRDRSPAAETPFLQRRPSVRAVISTVERGAGRGRPOAKPIPEAEZAQRPE	100
455_051.aa.3	1		0
Ovr107_aa	101	PVGTSNNADSSASPDLGPRGPD LAVLQAEREVDILNHVFDDVESFVSRLQK	150
455_051.aa.3	1::: :..... .. MSP-LSPGSPLPLARAD-----LTAILTG	24
Ovr107_aa	151	SAEAARVLEHRERGRSRRRAAGEGLLTLRAKPPSEAEYTDVLQIKIYAF	200
455_051.aa.3	25	CPPLSACLVLAPRP HRRARLLPSEG LLLTLRAKPPSEAEYTDVLQIKIYAF	74
Ovr107_aa	201	SLLARLRGN IADFPSSPELLHFLFGPLQMIVNTSGGPEFASSVRRPHLTSD	250
455_051.aa.3	75	SLLARLRGN IADFPSSPELLHFLFGPLQMIVNTSGGPEFASSVRRPHLTSD	124
Ovr107_aa	251	AVALLRDNVTPRENELWTS LGDSWTRPGLELSPEEGPPYRPEFFSGWEPP	300
455_051.aa.3	125	AVALLRDNVTPRENELWTS LGDSWTRPGLELSPEEGPPYRPEFFSGWEPP	174
Ovr107_aa	301	VTDPQSRAWEDPVEKQLQHERRRRQQSAPQVAVNGHRDLEPESE PQLESE	350
455_051.aa.3	175	VTDPQSRAWEDPVEKQLQHERRRRQQSAPQVAVNGHRDLEPESE PQLESE	224
Ovr107_aa	351	TAGKWVLCNYDFQARNSSSEL SVKQRDVLEVLD DS RKWKVKVRDPAGQEGYV	400
455_051.aa.3	225	TAGKWVLCNYDFQARNSSSEL SVKQRDVLEVLD DS RKWKVKVRDPAGQEGYV	274
Ovr107_aa	401	PYNILTYPYGPRLHHSQSPARSLNSTPPPPPAPAPAPPPALARPRWRDRPR	450
455_051.aa.3	275	PYNILTYPYGPRLHHSQSPARSLNSTPPPPPAPAPAPPPALARPRWRDRPR	324
Ovr107_aa	451	WDSCDSLNLGLDPSEKEKF SQMLIVNEELQARLAQGRSGPSRAVP GPRAPE	500
455_051.aa.3	325	WDSCDSLNLGLDPSEKEKF SQMLIVNEELQARLAQGRSGPSRAVP GPRAPE	374
Ovr107_aa	501	PQLSPGSDASEVRAWLQAKGFSSGTVDALGVLTGAQLFSLQREELRAVSP	550
455_051.aa.3	375	PQLSPGSDASEVRAWLQAKGFSSGTVDALGVLTGAQLFSLQKEELRAVSP	424
Ovr107_aa	551	EEGARVYSQVTVQRSLLLEDKEKVSELEAVMEKQKKKVEGEVEMEVI	596
455_051.aa.3	425	EEGARVYSQVTVQRSLLLEDKEKVSELEAVMEKQKKKVEGEVEMEVI	470

Ovr107_aa	1	MNRTWPRRIIWGSSQDEALIREIDIQGALHNYRSGRGERRAAALRATQEEL	50
455_051.aa.2	1		0
Ovr107_aa	51	QRDRSPAAETPFPLQRRPSVRAVISTVERGAGRGRPOAKPIPEAEAAQRPE	100
455_051.aa.2	1		0
Ovr107_aa	101	PVGTTSSNADSASPD LGP R GFDLAV LQAEREVDILNHVFDDVESFVSRLQK :.... :: :	50
455_051.aa.2	1	DLFQMSP-LSPGSPLPPLARAD-----LTAILTG	28
Ovr107_aa	151	SAEAARVLEHRERGRSRRRAAGEGLLTLRAKP PSEA EYTDVLQ KIKYAF	200
455_051.aa.2	29	CPPLSACLVLAPRP HRRARLLPSEGLLTLRAKP PSEA EYTDVLQ KIKYAF	78
Ovr107_aa	201	SLLARLRGN IADPSSPELLHF LF GP L QMI VNTSGGP EFASSVR RP HL TSD 	250
455_051.aa.2	79	SLLARLRGN IADPSSPELLHF LF GP L QMI VNTSGGP EFASSVR RP HL TSD	128
Ovr107_aa	251	AVAL LRDNVT PRENELWT SLGD SWTRPGLELSPEEGFP YR PEFF SGWEPP 	300
455_051.aa.2	129	AVAL LRDNVT PRENELWT SLGD SWTRPGLELSPEEGFP YR PEFF SGWEPP	178
Ovr107_aa	301	VTD PQSR AWEDPV EKQLQH ER RR RQQ S APQVA VN GH RD LE PE SE PQ LE SE 	350
455_051.aa.2	179	VTD PQSR AWEDPV EKQLQH ER RR RQQ S APQVA VN GH RD LE PE SE PQ LE SE	228
Ovr107_aa	351	TAG KW VL CN YDFQ AR NS SEL SVK QR DV LV EL DD SR KK W KV RD PAQ EG YV 	400
455_051.aa.2	229	TAG KW VL CN YDFQ AR NS SEL SVK QR DV LV EL DD SR KK W KV RD PAQ EG YV	278
Ovr107_aa	401	PYN IL TPYP GP RL HH SQ SPARS LN ST PPP PP A PA PA PPP ALA RP WR DR PR 	450
455_051.aa.2	279	PYN IL TPYP GP RL HH SQ SPARS LN ST PPP PP A PA PA PPP ALA RP WR DR PR	328
Ovr107_aa	451	WDSCDSLNGLD PSEKEKF SQMLIVNEELQARLAQGRSGPSRAVP GP RAPE 	500
455_051.aa.2	329	WDSCDSLNGLD PSEKEKF SQMLIVNEELQARLAQGRSGPSRAVP GP RAPE	378
Ovr107_aa	501	PQLSPGSDASEVRAWLQAKGFSSGTVDALGVLTGAQLFSLQREELRAVSP 	550
455_051.aa.2	379	PQLSPGSDASEVRAWLQAKGFSSGRRSCGR	408
Ovr107_aa	551	Eegarvysqvtv qrs lledkekvseleavmek qkkkvegeve mevi	596
455_051.aa.2	409		408

Ovr107	1	AGAGCAAGGAAGGGCAGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG	50
455_051.nt.3	1		0
Ovr107	51	GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG	100
455_051.nt.3	1		0
Ovr107	101	ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG	150
455_051.nt.3	1		0
Ovr107	151	GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC	200
455_051.nt.3	1		0
Ovr107	201	GGGCCGCGGGGAGCGCAGGGCGGCGGCGCTCAGGGCCACGCAGGAGGAGT	250
455_051.nt.3	1		0
Ovr107	251	TGCAGCGCGACCGCTCGCCCCGCGCTGAGACCCGCCCCTGCAGCGCCGC	300
455_051.nt.3	1		0
Ovr107	301	CCGTCAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGCGGGCCGCGG	350
455_051.nt.3	1		0
Ovr107	351	ACGACCCCAGGCGAAGCCCATTCCCGAGGCAGAGGAGGCGCAGAGGCCTG	400
455_051.nt.3	1		0
Ovr107	401	AGCCGGTGGGGACCTCGAGCAA-----CGCTGACTC----GGC-CTCC	438
455_051.nt.3	1	. .. GATCTCTTCCAAATGTCCCCGCT--CTCCCCAGGCTCTCC	38
Ovr107	439	CCGGACCTGGGTCC-----CCGGGTCTTGACCTGGCGGTTCTGCA	479
455_051.nt.3	39	. CC-----TCCCCGCACTTGCCAGGG--CTGACCT-----CA	67
Ovr107	480	-GGCGGAGCGGGAAGTGGACATCCTGAACCACGTGTTTCGACGACGTAGAG	528
455_051.nt.3	68 CCGC-----CAT-CTTAACCGGGTGTCC-----	89
Ovr107	529	AGCTTTGTATCGAGGCTGCAGAAAGTCGGCGGAGGCGGCCAGGGTGCTGGA	578
455_051.nt.3	90 ACCTCTCT-----CTGC-----CTGCC-TGGTGCTGGC	116
Ovr107	579	GCACCGGGAACGCGGCCGCAGGAGCCGGCGCCGGGCGGCT---GGGGAG	624
455_051.nt.3	117 CC-----CGCGTCCCCA-TCGCC-GCGCCCGTCTGCTCCCCTCAGAG	156
Ovr107	625	GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	674
455_051.nt.3	157	 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	206
Ovr107	675	CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCCGGCTGCGCG	724
455_051.nt.3	207	 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCCGGCTGCGCG	256

FIGURE 12 (continued)

Ovr107	725	GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG	774
455_051.nt.3	257		306
Ovr107	775	CCTCTGCAGATGATTGTGAACACGTCGGGGGGCCGGAGTTCGCGAGCAG	824
455_051.nt.3	307		356
Ovr107	825	TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA	874
455_051.nt.3	357		406
Ovr107	875	ACGTCACCTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG	924
455_051.nt.3	407		456
Ovr107	925	ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCATACAGACC	974
455_051.nt.3	457		506
Ovr107	975	CGAGTTCCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGAGAGCCGCG	1024
455_051.nt.3	507		556
Ovr107	1025	CCTGGGAGGACCCAGTTGAGAAAACAGCTACAGCACGAGCGGAGGCGCCGG	1074
455_051.nt.3	557		606
Ovr107	1075	CAGCAAAGCGCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC	1124
455_051.nt.3	607		656
Ovr107	1125	AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT	1174
455_051.nt.3	657		706
Ovr107	1175	GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCCGGTCAAGCAG	1224
455_051.nt.3	707		756
Ovr107	1225	CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAAGGTTTCG	1274
455_051.nt.3	757		806
Ovr107	1275	GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT	1324
455_051.nt.3	807		856
Ovr107	1325	ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC	374
455_051.nt.3	857		906
Ovr107	1375	AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGCCCCACCTCCAGCTCT	1424
455_051.nt.3	907		956
Ovr107	1425	GGCTCGGCCCCGCTGGGACAGGCCCGCTGGGACAGCTGCGATAGCCTCA	1474
455_051.nt.3	957		1006

FIGURE 12 (continued)

Ovr107	1475	ACGGCTTGGACCCAGCGAGAAGGAGAAATTCTCCAGATGCTCATCGTC	1524
455_051.nt.3	1007	ACGGCTTGGACCCAGCGAGAAGGAGAAATTCTCCAGATGCTCATCGTC	1056
Ovr107	1525	AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG	1574
455_051.nt.3	1057	AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG	1106
Ovr107	1575	CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG	1624
455_051.nt.3	1107	CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG	1156
Ovr107	1625	ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG	1674
455_051.nt.3	1157	ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG	1206
Ovr107	1675	ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA	1724
455_051.nt.3	1207	ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA	1256
Ovr107	1725	GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA	1774
		.	
455_051.nt.3	1257	GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA	1306
Ovr107	1775	GCCAGGTCACCGTGACGCTCGCTGCTGGAGGACAAAGAGAAAGTGTC	1824
455_051.nt.3	1307	GCCAGGTCACCGTGACGCTCGCTGCTGGAGGACAAAGAGAAAGTGTC	1356
Ovr107	1825	GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT	1874
455_051.nt.3	1357	GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT	1406
Ovr107	1875	GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA	1924
455_051.nt.3	1407	GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA	1456
Ovr107	1925	GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCAATAGCGGAAGTCG	1974
455_051.nt.3	1457	GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCAATAGCGGAAGTCG	1506
Ovr107	1975	ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC	2024
455_051.nt.3	1507	ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC	1556
Ovr107	2025	GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG	2074
455_051.nt.3	1557	GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG	1606
Ovr107	2075	ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC	2124
455_051.nt.3	1607	ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC	1656
Ovr107	2125	AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGGCC	2174
455_051.nt.3	1657	AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGGCC	1706
Ovr107	2175	AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAAAAAAAA	2221
455_051.nt.3	1707	AGCCTATAAACAGCCTCCGTGCTTAGCAG	1735

FIGURE 13.

Ovr107	1	AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG	50
455_051.nt.4	1		0
Ovr107	51	GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG	100
455_051.nt.4	1		0
Ovr107	101	ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG	150
455_051.nt.4	1		0
Ovr107	151	GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC	200
455_051.nt.4	1		0
Ovr107	201	GGGCCGCGGGGAGCGCAGGGCGGCGGCTCAGGGCCACGCAGGAGGAGT	250
455_051.nt.4	1		0
Ovr107	251	TGCAGCGCGACCGCTCGCCCGCCGCTGAGACCCCGCCCCTGCAGCGCCGC	300
455_051.nt.4	1		0
Ovr107	301	CCGTCAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGCGGGCCGCGG	350
455_051.nt.4	1		0
Ovr107	351	ACGACCCCGAGGCGAAGCCCATTCCCAGGCAGAGGAGGCGCAGAGGCCTG	400
455_051.nt.4	1		0
Ovr107	401	AGCCGGTGGGGACCTCGAGCAA-----CGCTGACTC---GGC-CTCC	438
455_051.nt.4	1	GATCTCTTCCAATGTCCCCGCT--CTCCCCAGGCTCTCC	38
Ovr107	439	CCGGACCTGGGTCC-----CCGGGGTCTGACCTGGCGGTTCTGCA	79
455_051.nt.4	39	CC-----TCCCGCCACTTGCCAGGG--CTGACCT-----CA	67
Ovr107	480	-GGCGGAGCGGGAAGTGGACATCCTGAACCACGTGTTTCGACGACGTAGAG	28
455_051.nt.4	68	CCGC-----CAT-CTTAACCGGGTGTCC-----	89
Ovr107	529	AGCTTTGTATCGAGGCTGCAGAAGTCGGCGGAGGCGGCCAGGGTGCTGGA	78
455_051.nt.4	90	ACCTCTCT-----CTGC-----CTGCC-TGGTGCTGGC	16
Ovr107	579	GCACCGGGAACGCGGCCCGCAGGAGCCGGCGCCGGGCGGCT---GGGGAG	24
455_051.nt.4	117	CC-----CGCGTCCCCA-TCGCC-GCGCCCGTCTGCTCCCCTCAGAG	156
Ovr107	625	GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	674
455_051.nt.4	157	GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	206
Ovr107	675	CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG	724
455_051.nt.4	207	CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG	256

FIGURE 13 (continued)

Ovr107	725	GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG	774
455_051.nt.4	257	GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG	306
Ovr107	775	CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCGGAGTTCGCGAGCA	824
455_051.nt.4	307	CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCGGAGTTCGCGAGCAG	356
Ovr107	825	TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA	874
455_051.nt.4	357	TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA	406
Ovr107	875	ACGTCACCTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG	924
455_051.nt.4	407	ACGTCACCTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG	456
Ovr107	925	ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC	974
455_051.nt.4	457	ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC	506
Ovr107	975	CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG	1024
455_051.nt.4	507	CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG	556
Ovr107	1025	CCTGGGAGGACCCAGTTGAGAAAACAGCTACAGCACGAGCGGAGGCGCCGG	1074
455_051.nt.4	557	CCTGGGAGGACCCAGTTGAGAAAACAGCTACAGCACGAGCGGAGGCGCCGG	606
Ovr107	1075	CAGCAAAGCGCCCCCAGGTGCTGTCAATGGTCACCGAGACTTGGAGCC	1124
455_051.nt.4	607	CAGCAAAGCGCCCCCAGGTGCTGTCAATGGTCACCGAGACTTGGAGCC	656
Ovr107	1125	AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCTCTGT	1174
455_051.nt.4	657	AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCTCTGT	706
Ovr107	1175	GTAATTATGACTTCCAGGCCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG	224
455_051.nt.4	707	GTAATTATGACTTCCAGGCCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG	756
Ovr107	1225	CGGGACGTACTGGAGGTCTGGATGACAGTCGTAAGTGGTGAAGGTTTCG	1274
455_051.nt.4	757	CGGGACGTACTGGAGGTCTGGATGACAGTCGTAAGTGGTGAAGGTTTCG	806
Ovr107	1275	GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT	1324
455_051.nt.4	807	GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT	856
Ovr107	1325	ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC	1374
455_051.nt.4	857	ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC	906
Ovr107	1375	AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT	1424
455_051.nt.4	907	AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT	956
Ovr107	1425	GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA	1474
455_051.nt.4	957	GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA	1006

FIGURE 13 (continued)

Ovr107	1475	ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCAGATGCTCATCGTC	1524
455_051.nt.4	1007	ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCAGATGCTCATCGTC	1056
Ovr107	1525	AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG	1574
455_051.nt.4	1057	AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG	1106
Ovr107	1575	CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCCGGGCTCGG	1624
455_051.nt.4	1107	CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCCGGGCTCGG	1156
Ovr107	1625	ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG	1674
455_051.nt.4	1157	ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG	1206
Ovr107	1675	ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA	1724
455_051.nt.4	1207	ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA	1256
Ovr107	1725	GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA	1774
		.	
455_051.nt.4	1257	GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA	1306
Ovr107	1775	GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA	1824
455_051.nt.4	1307	GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA	1356
Ovr107	1825	GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGGTGGAAGGCGAGGT	1874
455_051.nt.4	1357	GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGGTGGAAGGCGAGGT	1406
Ovr107	1875	GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA	1924
455_051.nt.4	1407	GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA	1456
Ovr107	1925	GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG	1974
455_051.nt.4	1457	GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG	1506
Ovr107	1975	ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC	2024
455_051.nt.4	1507	ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC	1556
Ovr107	2025	GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG	2074
455_051.nt.4	1557	GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG	1606
Ovr107	2075	ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAGCGCTAGC	2124
455_051.nt.4	1607	ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAGCGCTAGC	1656
Ovr107	2125	AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC	2174
455_051.nt.4	1657	AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC	1706
Ovr107	2175	AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAAAAAAAAA	2221
		.	
455_051.nt.4	1707	AGCCTATAAACAGCCTCCGTGCTTAGCAGAAAAAAAAAAAAAAAAAAAAA	1756

FIGURE 13 (continued)

Ovr107	2222		2221
455_051.nt.4	1757	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATACAAAAATAAAAGA	1806
Ovr107	2222		2221
455_051.nt.4	1807	ATAGTCAACAAACAAAATAAGAACTATAGATAATATAAAAATGAAAATA	1856
Ovr107	2222		2221
455_051.nt.4	1857	AAAAAGAGATGGGGTGGGGCCCTTGTCTTTACTCTCTCCCTCTGGAGTGG	1906
Ovr107	2222		2221
455_051.nt.4	1907	GCACACTATATTATTTTCGCCCTCCCCCTCTTTTTTTGTATGAGAGGGCTC	1956
Ovr107	2222		2221
455_051.nt.4	1957	TTTTA	1961

FIGURE 14

Ovr107	1	AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG	50
455_051.nt.5	1		0
Ovr107	51	GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG	100
455_051.nt.5	1		0
Ovr107	101	ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG	150
455_051.nt.5	1		0
Ovr107	151	GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC	200
455_051.nt.5	1		0
Ovr107	201	GGGCCGCGGGGAGCGCAGGGCGGCGGCTCAGGGCCACGCAGGAGGAGT	250
455_051.nt.5	1		0
Ovr107	251	TGCAGCGCGACCGCTCGCCCGCCGCTGAGACCCCGCCCTGCAGCGCCGC	300
455_051.nt.5	1		0
Ovr107	301	CCGTCTAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGGGGCGCGG	50
455_051.nt.5	1		0
Ovr107	351	ACGACCCCGAGCGAAGCCCATTCCTCGAGGCAGAGGAGGCGCAGAGGCCTG	400
455_051.nt.5	1		0
Ovr107	401	AGCCGGTGGGGACCTCGAGCAA-----CGCTGACTC----GGC-CTCC	438
455_051.nt.5	1	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="text-align: center;"> . . </div> <div style="text-align: center;">GATCTCTTCCAAATGTCCCCGCT--CTCCCCAGGCTCTCC</div> </div> <div style="flex: 1; text-align: center;"> <div style="text-align: center;"> </div> <div style="text-align: center;">CTCCCCAGGCTCTCC</div> </div> </div>	38
Ovr107	439	CCGGACCTGGGTCC-----CCGGGGTCTGACCTGGCGGTTCTGCA	79
455_051.nt.5	39	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="text-align: center;"> </div> <div style="text-align: center;">CC-----TCCCCGCACTTGCCAGGG--CTGACCT-----CA</div> </div> <div style="flex: 1; text-align: center;"> <div style="text-align: center;"> . </div> <div style="text-align: center;">CTGACCT-----CA</div> </div> </div>	67
Ovr107	480	-GGCGGAGCGGGAAGTGGACATCCTGAACCACGTGTTGACGACGTAGAG	528
455_051.nt.5	68	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="text-align: center;">. </div> <div style="text-align: center;">CCGC-----CAT-CTTAACCGGGTGTC-----</div> </div> <div style="flex: 1; text-align: center;"> <div style="text-align: center;"> </div> <div style="text-align: center;">CTTAACCGGGTGTC-----</div> </div> </div>	89
Ovr107	529	AGCTTTGTATCGAGGCTGCAGAAGTCGGCGGAGGCGGCCAGGGTGCTGGA	578
455_051.nt.5	90	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="text-align: center;"> . . </div> <div style="text-align: center;">ACCTCTCT-----CTGC-----CTGCC-TGGTGCTGGC</div> </div> <div style="flex: 1; text-align: center;"> <div style="text-align: center;"> . . </div> <div style="text-align: center;">CTGCC-TGGTGCTGGC</div> </div> </div>	16
Ovr107	579	GCACCGGGAACGCGGCCGAGGAGCCGGCGCCGGCGGCT----GGGGAG	624
455_051.nt.5	117	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="text-align: center;">. </div> <div style="text-align: center;">CC-----CGCGTCCCCA-TCGCC-GCGCCGCTCTGCTCCCTCAGAG</div> </div> <div style="flex: 1; text-align: center;"> <div style="text-align: center;"> . . </div> <div style="text-align: center;">CGCGTCCCCA-TCGCC-GCGCCGCTCTGCTCCCTCAGAG</div> </div> </div>	156
Ovr107	625	GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	674
455_051.nt.5	157	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="text-align: center;"> </div> <div style="text-align: center;">GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA</div> </div> <div style="flex: 1; text-align: center;"> <div style="text-align: center;"> </div> <div style="text-align: center;">GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA</div> </div> </div>	206
Ovr107	675	CGTGCTGCAGAAGATCAAGTACGCCCTTCAGCCTGCTGGCCCGGCTGCGCG	724
455_051.nt.5	207	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="text-align: center;"> </div> <div style="text-align: center;">CGTGCTGCAGAAGATCAAGTACGCCCTTCAGCCTGCTGGCCCGGCTGCGCG</div> </div> <div style="flex: 1; text-align: center;"> <div style="text-align: center;"> </div> <div style="text-align: center;">CGTGCTGCAGAAGATCAAGTACGCCCTTCAGCCTGCTGGCCCGGCTGCGCG</div> </div> </div>	256

FIGURE 14 (continued)

Ovr107	725	GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG	774
455_051.nt.5	257	GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG	306
Ovr107	775	CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCGGAGTTCGCGAGCAG	824
455_051.nt.5	307	CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCGGAGTTCGCGAGCAG	356
Ovr107	825	TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA	874
455_051.nt.5	357	TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA	406
Ovr107	875	ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG	924
455_051.nt.5	407	ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG	456
Ovr107	925	ACCCGCCCCGGGCTGGAGCTGTCCCGGAGGAGGGACCCCATACAGACC	974
455_051.nt.5	457	ACCCGCCCCGGGCTGGAGCTGTCCCGGAGGAGGGACCCCATACAGACC	506
Ovr107	975	CGAGTTCCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG	024
455_051.nt.5	507	CGAGTTCCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG	556
Ovr107	1025	CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG	1074
455_051.nt.5	557	CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG	606
Ovr107	1075	CAGCAAAGCGCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGAGACC	1124
455_051.nt.5	607	CAGCAAAGCGCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGAGACC	656
Ovr107	1125	AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCTGT	1174
455_051.nt.5	657	AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCTGT	706
Ovr107	1175	GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCCGGTCAAGCAG	1224
455_051.nt.5	707	GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCCGGTCAAGCAG	756
Ovr107	1225	CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTTCG	1274
455_051.nt.5	757	CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTTCG	806
Ovr107	1275	GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCT	1324
455_051.nt.5	807	GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCT	856
Ovr107	1325	ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC	1374
455_051.nt.5	857	ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC	906
Ovr107	1375	AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT	1424
455_051.nt.5	907	AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT	956
Ovr107	1425	GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA	1474
455_051.nt.5	957	GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA	1006

FIGURE 14 (continued)

Ovr107	1475	ACGGCTTGGACCCCAGCGAGAAGGAGAAAATTCTCCAGATGCTCATCGTC	1524
455_051.nt.5	1007	ACGGCTTGGACCCCAGCGAGAAGGAGAAAATTCTCCAGATGCTCATCGTC	1056
Ovr107	1525	AACGAGGAAGTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG	1574
455_051.nt.5	1057	AACGAGGAAGTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG	1106
Ovr107	1575	CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG	1624
455_051.nt.5	1107	CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG	1156
Ovr107	1625	ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG	1674
455_051.nt.5	1157	ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG	1206
Ovr107	1675	ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA	1724
455_051.nt.5	1207	ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA	1256
Ovr107	1725	GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA	1774
		.	
455_051.nt.5	1257	GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA	1306
Ovr107	1775	GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA	1824
455_051.nt.5	1307	GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA	1356
Ovr107	1825	GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT	1874
455_051.nt.5	1357	GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT	1406
Ovr107	1875	GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA	1924
455_051.nt.5	1407	GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA	1456
Ovr107	1925	GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG	1974
455_051.nt.5	1457	GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG	1506
Ovr107	1975	ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC	2024
455_051.nt.5	1507	ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC	1556
Ovr107	2025	GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG	2074
455_051.nt.5	1557	GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG	1606
Ovr107	2075	ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC	2124
455_051.nt.5	1607	ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC	1656
Ovr107	2125	AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGGCC	2174
455_051.nt.5	1657	AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGGCC	1706
Ovr107	2175	AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAA-----	2215
455_051.nt.5	1707	AGCCTATAAACAGCCTCCGTGCTTAGCAGAAAAASAAAAACACATCAACCC	1756

FIGURE 14 (continued)

Ovr107	2216	AAAAAA	2221
		.	
455_051.nt.5	1757	AACAAACGTTTGGGGTATTCCATGGCCAATACCGTTGTTCCCGTGTGTGA	1806
Ovr107	2222		2221
455_051.nt.5	1807	ACATTGTTATTTTCAGCTCACATTTCCACAGTATTGGAACAACACATCAT	1856
Ovr107	2222		2221
455_051.nt.5	1857	ACCACACACACACAGAACCAATCGAGATATATAAACCCAATGCACACTCA	1906
Ovr107	2222		2221
455_051.nt.5	1907	AACACCTAAT	1916

FIGURE 15

Sequence	Position	Sequence	Position
Ovr107	1	AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG	50
455_051.nt.6	1		0
Ovr107	51	GGTTTGAAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG	100
455_051.nt.6	1		0
Ovr107	101	ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG	50
455_051.nt.6	1		0
Ovr107	151	GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC	200
455_051.nt.6	1		0
Ovr107	201	GGGCCGCGGGGAGCGCAGGGCGGCGGCGCTCAGGGCCACGCAGGAGGAGT	250
455_051.nt.6	1		0
Ovr107	251	TGCAGCGCGACCGCTCGCCCGCCGCTGAGACCCCGCCCCTGCAGCGCCGC	300
455_051.nt.6	1		0
Ovr107	301	CCGTCAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGCGGGCCGCGG	350
455_051.nt.6	1		0
Ovr107	351	ACGACCCCGAGGCGAAGCCCATTCCCAGGCAGAGGAGGCGCAGAGGCCTG	400
455_051.nt.6	1		0
Ovr107	401	AGCCGGTGGGGACCTCGAGCAA-----CGCTGACTC----GGC-CTCC	438
455_051.nt.6	1	GATCTCTTCCAAATGTCCCGCT--CTCCCCAGGCTCTCC	38
Ovr107	439	CCGGACCTGGGTCC-----CCGGGGTCTTGACCTGGCGGTTCTGCA	479
455_051.nt.6	39	CC-----TCCCGCCACTTGCCAGGG--CTGACCT-----CA	67
Ovr107	480	-GGCGGAGCGGGGAAGTGGACATCCTGAACCACGTGTTTCGACGACGTAGAG	528
455_051.nt.6	68	CCGC-----CAT-CTTAACCGGGTGTCC-----	89
Ovr107	529	AGCTTTGTATCGAGGCTGCAGAAAGTCGGCGGAGGCGGCCAGGGTGCTGGA	578
455_051.nt.6	90	ACCTCTCT-----CTGC-----CTGCC-TGGTGCTGGC	116
Ovr107	579	GCACCGGGAACGCGGCCGCAGGAGCCGGCGCCGGGCGGCT----GGGGAG	624
455_051.nt.6	117	CC-----CGCGTCCCA-TCGCC-GCGCCGCTCTGCTCCCTCAGAG	156
Ovr107	625	GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	674
455_051.nt.6	157	GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA	206
Ovr107	675	CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCCGGCTGCGCG	724
455_051.nt.6	207	CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCCGGCTGCGCG	256

FIGURE 15 (continued)

Ovr107 725 GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG 774
|||||
455_051.nt.6 257 GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG 306
|||||

Ovr107 775 CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCGGAGTTCGCGAGCAG 824
|||||
455_051.nt.6 307 CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCGGAGTTCGCGAGCAG 356
|||||

Ovr107 825 TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA 874
|||||
455_051.nt.6 357 TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA 406
|||||

Ovr107 875 ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG 924
|||||
455_051.nt.6 407 ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG 456
|||||

Ovr107 925 ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC 974
|||||
455_051.nt.6 457 ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC 506
|||||

Ovr107 975 CGAGTTCTTCAGCGGCTGGGAGCCGCGCGGTCACTGACCCGACAGCCGCG 024
|||||
455_051.nt.6 507 CGAGTTCTTCAGCGGCTGGGAGCCGCGCGGTCACTGACCCGACAGCCGCG 556
|||||

Ovr107 1025 CCTGGGAGGACCCAGTTGAGAAAACAGCTACAGCACGAGCGGAGGCGCCGG 074
|||||
455_051.nt.6 557 CCTGGGAGGACCCAGTTGAGAAAACAGCTACAGCACGAGCGGAGGCGCCGG 606
|||||

Ovr107 1075 CAGCAAAGCGCCCCCAGGTGCTGTCAATGGTCACCGAGACTTGGAGCC 1124
|||||
455_051.nt.6 607 CAGCAAAGCGCCCCCAGGTGCTGTCAATGGTCACCGAGACTTGGAGCC 656
|||||

Ovr107 1125 AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT 1174
|||||
455_051.nt.6 657 AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT 706
|||||

Ovr107 1175 GTAATTATGACTTCCAGGCCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG 1224
|||||
455_051.nt.6 707 GTAATTATGACTTCCAGGCCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG 756
|||||

Ovr107 1225 CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTTCG 1274
|||||
455_051.nt.6 757 CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTTCG 806
|||||

Ovr107 1275 GGACCCAGCGGGGAGGAGGATATGTGCCCTACAACATCCTGACACCCT 1324
|||||
455_051.nt.6 807 GGACCCAGCGGGGAGGAGGATATGTGCCCTACAACATCCTGACACCCT 856
|||||

Ovr107 1325 ACCCCGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCCGAGCCTGAAC 1374
|||||
455_051.nt.6 857 ACCCCGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCCGAGCCTGAAC 906
|||||

Ovr107 1375 AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT 1424
|||||
455_051.nt.6 907 AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT 956
|||||

Ovr107 1425 GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1474
|||||
455_051.nt.6 957 GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1006
|||||

FIGURE 15 (continued)

Ovr107 1475 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCAGATGCTCATCGTC 1524
|||||
455_051.nt.6 1007 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCAGATGCTCATCGTC 1056

Ovr107 1525 AACGAGGAAGTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1574
|||||
455_051.nt.6 1057 AACGAGGAAGTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1106

Ovr107 1575 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1624
|||||
455_051.nt.6 1107 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1156

Ovr107 1625 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1674
|||||
455_051.nt.6 1157 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1206

Ovr107 1675 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1724
|||||
455_051.nt.6 1207 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1256

Ovr107 1725 GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1774
||.|||||
455_051.nt.6 1257 GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1306

Ovr107 1775 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1824
|||||
455_051.nt.6 1307 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1356

Ovr107 1825 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1874
|||||
455_051.nt.6 1357 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1406

Ovr107 1875 GGAAATGGAGGTCAATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1924
|||||
455_051.nt.6 1407 GGAAATGGAGGTCAATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1456

Ovr107 1925 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCAATAGCGGAAGTCG 1974
|||||
455_051.nt.6 1457 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCAATAGCGGAAGTCG 1506

Ovr107 1975 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCATCCC 2024
|||||
455_051.nt.6 1507 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCATCCC 1556

Ovr107 2025 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 2074
|||||
455_051.nt.6 1557 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 1606

Ovr107 2075 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAGCGCTAGC 2124
|||||
455_051.nt.6 1607 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAGCGCTAGC 1656

Ovr107 2125 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCC 2174
|||||
455_051.nt.6 1657 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCC 1706

Ovr107 2175 AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAAAAAAAA 2221
|||||
455_051.nt.6 1707 AGCCTATAAACAGCCTCCGTGCTTAGCAG 1735

Accession	Position	Sequence	Length
Ovr110	1	GAGTCACCAAGGAAGGCAGCGGCAGCTCCACTCAGCCAGTACCCAGA	47
Ovr110v1	1	TGTGAGTCACCAAGGAAGGCAGCGGCA-CTCCACTCAGCCAGTACCCAGA	49
Ovr110	48	TACGCTGGGAACCTTCCCCAGCCATGGCTTCCTGGGGCAGATCCTCTTC	97
Ovr110v1	50	TACGCTGGGAACCTTCCCCAGCCATGGCTTCCTGGGGCAGATCCTCTTC	99
Ovr110	98	TGGAGCATAATTAGCATCATCATTATTCTGGCTGGAGCAATTGCACATCAT	147
Ovr110v1	100	TGGAGCATAATTAGCATCATCATTATTCTGGCTGGAGCAATTGCACATCAT	149
Ovr110	148	CATTGGCTTTGGTATTT-----	164
Ovr110v1	150	CATTGGCTTTGGTATTTT CAGAAGTCTCTGTCTGGCTTTCAGCAATGAAGG	199
Ovr110	165	-----	164
Ovr110v1	200	GTTTGGTTGTAGAAGTTCCAAGGCTTCCCTTAGCATTGATCTTTGCTTCC	249
Ovr110	165	-----CAGGGAGACACTCCATCACAGTCACTACTGTGCGCTCAGCTGG	207
Ovr110v1	250	TGAACTGCAGGGAGACACTCCATCACAGTCACTACTGTGCGCTCAGCTGG	299
Ovr110	208	GAACATTGGGGAGGATGGAATCCAGAGCTGCACTTTTGAACCTGACATCA	257
Ovr110v1	300	GAACATTGGGGAGGATGGAATCTGAGCTGCACTTTTGAACCTGACATCA	349
Ovr110	258	AACTTTCTGATATCGTGATACAATGGCTGAAGGAAGGTGTTTTAGGCTTG	307
Ovr110v1	350	AACTTTCTGATATCGTGATACAATGGCTGAAGGAAGGTGTTTTAGGCTTG	399
Ovr110	308	GTCCATGAGTTCAAAGAAGGCAAAGATGAGCTGTGCGGAGCAGGATGAAAT	357
Ovr110v1	400	GTCCATGAGTTCAAAGAAGGCAAAGATGAGCTGTGCGGAGCAGGATGAAAT	449
Ovr110	358	GTTTCAGAGGCCGGACAGCAGTGTGCTGATCAAGTGATAGTTGGCAATG	407
Ovr110v1	450	GTTTCAGAGGCCGGACAGCAGTGTGCTGATCAAGTGATAGTTGGCAATG	499
Ovr110	408	CCTCTTTGCGGCTGAAAAACGTGCAACTCACAGATGCTGGCACCTACAAA	457
Ovr110v1	500	CCTCTTTGCGGCTGAAAAACGTGCAACTCACAGATGCTGGCACCTACAAA	549
Ovr110	458	TGTTATATCATCACTTCTAAAGGCAAGGGGAATGCTAACCTTGAGTATAA	507
Ovr110v1	550	TGTTATATCATCACTTCTAAAGGCAAGGGGAATGCTAACCTTGAGTATAA	599
Ovr110	508	AACTGGAGCCTTCAGCATGCCGGAAGTGAATGTGGACTATAATGCCAGCT	557
Ovr110v1	600	AACTGGAGCCTTCAGCATGCCGGAAGTGAATGTGGACTATAATGCCAGCT	649
Ovr110	558	CAGAGACCTTGCGGTGTGAGGCTCCCCGATGGTTCCCCCAGCCCACAGTG	607
Ovr110v1	650	CAGAGACCTTGCGGTGTGAGGCTCCCCGATGGTTCCCCCAGCCCACAGTG	699
Ovr110	608	GTCTGGGCATCCCAAGTTGACCAGGGAGCCAACCTTCTCGGAAGTCTCCAA	657
Ovr110v1	700	GTCTGGGCATCCCAAGTTGACCAGGGAGCCAACCTTCTCGGAAGTCTCCAA	749

FIGURE 16 (continued)

Ovr110	658	TACCAGCTTTGAGCTGAACTCTGAGAATGTGACCATGAAGGTTGTGTCTG	707
Ovr110v1	750	TACCAGCTTTGAGCTGAACTCTGAGAATGTGACCATGAAGGTTGTGTCTG	799
Ovr110	708	TGCTCTACAATGTTACGATCAACAACACATACTCCTGTATGATTGAAAAT	757
Ovr110v1	800	TGCTCTACAATGTTACGATCAACAACACATACTCCTGTATGATTGAAAAT	849
Ovr110	758	GACATTGCCAAAGCAACAGGGGATATCAAAGTGACAGAATCGGAGATCAA	807
Ovr110v1	850	GACATTGCCAAAGCAACAGGGGATATCAAAGTGACAGAATCGGAGATCAA	899
Ovr110	808	AAGGCGGAGTCACCTACAGCTGCTAAACTCAAAGGCTTCTCTGTGTGTCT	857
Ovr110v1	900	AAGGCGGAGTCACCTACAGCTGCTAAACTCAAAGGCTTCTCTGTGTGTCT	949
Ovr110	858	CTTCTTTCTTTGCCATCAGCTGGGCACCTTCTGCCTCTCAGCCCTTACCTG	907
Ovr110v1	950	CTTCTTTCTTTGCCATCAGCTGGGCACCTTCTGCCTCTCAGCCCTTACCTG	999
Ovr110	908	ATGCTAAAATAATGTGCCTCGGCCACAAAAAAGCATGCAAAGTCATTGTT	957
Ovr110v1	1000	TGCTAAAATAATGTGCCTTGGGCCACAAAAAAGCATGCAAAGTCATTGTT	1049
Ovr110	958	ACAACAGGGATCTACAGAACTATTTTACCACCAGATATGACCTAGTTTTA	1007
Ovr110v1	1050	ACAACAGGGATCTACAGAACTATTTTACCACCAGATATGACCTAGTTTTA	1099
Ovr110	1008	TATTTCTGGGAGGAAATGAATTCATATCTAGAAGTCTGGAGTGAGCAAAC	1057
Ovr110v1	1100	TATTTCTGGGAGGAAATGAATTCATATCTAGAAGTCTGGAGTGAGCAAAC	1149
Ovr110	1058	AAGAGCAAGAAACAAAAAGAAGCCAAAAGCAGAAGGCTCCAATATGAACA	1107
Ovr110v1	1150	AAGAGCAAGAAACAAAAAGAAGCCAAAAGCAGAAGGCTCCAATATGAACA	1199
Ovr110	1108	AGATAAATCTATCTTCAAAGACATATTAGAAGTTGGGAAAATAATTCATG	1157
Ovr110v1	1200	AGATAAATCTATCTTCAAAGACATATTAGAAGTTGGGAAAATAATTCATG	1249
Ovr110	1158	TGAACTAGA-----	1166
Ovr110v1	1250	TGAACTAGACAAGTGTGTTAAGAGTGATAAGTAAATGCACGTGGAGACA	1299
Ovr110	1167	-----	1166
Ovr110v1	1300	AGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTACCTGGGGAGT	1349
Ovr110	1167	-----	1166
Ovr110v1	1350	GAGAGGACAGGATAGTGCATGTTCTTTGTCTCTGAATTTTATGTTATATG	1399
Ovr110	1167	-----	1166
Ovr110v1	1400	TGCTGTAATGTTGCTCTGAGGAAGCCCCCTGGAAAGTCTATCCCAACATAT	1449
Ovr110	1167	-----	1166
Ovr110v1	1450	CCACATCTTATATTCCACAAATTAAGCTGTAGTATGTACCCTAAGACGCT	1499

FIGURE 16 (continued)

Ovr110	1167	-----	1166
Ovr110v1	1500	GCTAATTGACTGCCACTTCGCAACTCAGGGGCGGCTGCATTTTAGTAATG	1549
Ovr110	1167	-----	1166
Ovr110v1	1550	GGTCAAATGATTCACTTTTATGATGCTTCCAAAGGTGCCTTGGCTTCTC	1599
Ovr110	1167	-----	1166
Ovr110v1	1600	TTCCCAACTGACAAATGCCAAAGTTGAGAAAAATGATCATAATTTTAGCA	1649
Ovr110	1167	-----	1166
Ovr110v1	1650	TAAACAGAGCAGTCGGCGACACCGATTTTATAAATAAACTGAGCACCTTC	1699
Ovr110	1167	-----	1166
Ovr110v1	1700	TTTTTAAACAAACAAATGCGGGTTTATTTCTCAGATGATGTTTCATCCGTG	1749
Ovr110	1167	-----	1166
Ovr110v1	1750	AATGGTCCAGGGAAGGACCTTTCACCTTGACTATATGGCATTATGTCATC	1799
Ovr110	1167	-----	1166
Ovr110v1	1800	ACAAGCTCTGAGGCTTCTCCTTTCCATCCTGCGTGGACAGCTAAGACCTC	1849
Ovr110	1167	-----	1166
Ovr110v1	1850	AGTTTCAATAGCATCTAGAGCAGTGGGACTCAGCTGGGGTGATTTGCGC	1899
Ovr110	1167	-----	1166
Ovr110v1	1900	CCCCATCTCCGGGGGAATGTCTGAAGACAATTTTGGTTACCTCAATGAGG	1949
Ovr110	1167	-----	1166
Ovr110v1	1950	GAGTGGAGGAGGATACAGTGCTACTACCAACTAGTGGATAAAGGCCAGGG	1999
Ovr110	1167	-----	1166
Ovr110v1	2000	ATGCTGCTCAACCTCCTACCATGTACAGGACGTCTCCCCATTACAACCTAC	2049
Ovr110	1167	-----GTCAACTGTGTGAGGGCTAAGAAACCTGGTTTTGAGT	1204
Ovr110v1	2050	CCAATCCGAAGTGTCAACTGTGTGTCAGGACTAAGAAACCTGGTTTTGAGT	2099
Ovr110	1205	AGAAAAGGGCCTGGAAAGAGGGGAGCCAACAAATCTGTCTGCTTCCTCAC	1254
Ovr110v1	2100	AGAAAAGGGCCTGGAAAGAGGGGAGCCAACAAATCTGTCTGCTTCCTCAC	2149
Ovr110	1255	ATTAGTCATTGGCAAATAAGCATTCTGTCTCTTTGGCTGCTGCCTCAGCA	1304
Ovr110v1	2150	ATTAGTCATTGGCAAATAAGCATTCTGTCTCTTTGGCTGCTGCCTCAGCA	2199
Ovr110	1305	CAGAGAGCCAGAACTCTATCGGGCACCAGGATAACATCTCTCAGTGAACA	1354
Ovr110v1	2200	CAGAGAGCCAGAACTCTATCGGGCACCAGGATAACATCTCTCAGTGAACA	2249

FIGURE 16 (continued)

Ovr110	1355	GAGTTGACAAGGCCTATGGGAAATGCCTGATGGGATTATCTTCAGCTTGT	1404
Ovr110v1	2250	GAGTTGACAAGGCCTATGGGAAATGCCTGATGGGATTATCTTCAGCTTGT	2299
Ovr110	1405	TGAGCTTCTAAGTTTCTTTCCCTTCATTCTACCCTGCAAGCCAAGTTCTG	1454
Ovr110v1	2300	TGAGCTTCTAAGTTTCTTTCCCTTCATTCTACCCTGCAAGCCAAGTTCTG	2349
Ovr110	1455	TAAGAGAAATGCCTGAGTTCTAGCTCAGGTTTCTTACTCTGAATTTAGA	1504
Ovr110v1	2350	TAAGAGAAATGCCTGAGTTCTAGCTCAGGTTTCTTACTCTGAATTTAGA	2399
Ovr110	1505	TCTCCAGACCCCTGCCTGGCCACAATTCAAATTAAGGCAACAAACATATAC	1554
Ovr110v1	2400	TCTCCAGACCCCTGCCTGGCCACAATTCAAATTAAGGCAACAAACATATAC	2449
Ovr110	1555	CTTCCATGAAGCACACACAGACTTTTGAAAGCAAGGACAATGACTGCTTG	1604
Ovr110v1	2450	CTTCCATGAAGCACACACAGACTTTTGAAAGCAAGGACAATGACTGCTTG	2499
Ovr110	1605	AATTGAGGCCTTGAGGAATGAAGCTTTGAAGGAAAAGAATACTTTGTTTC	1654
Ovr110v1	2500	AATTGAGGCCTTGAGGAATGAAGCTTTGAAGGAAAAGAATACTTTGTTTC	2549
Ovr110	1655	CAGCCCCCTTCCCACACTCTTCATGTGTTAACCCTGCCTTCCTGGACCT	1704
Ovr110v1	2550	CAGCCCCCTTCCCACACTCTTCATGTGTTAACCCTGCCTTCCTGGACCT	2599
Ovr110	1705	TGGAGCCACGGTGACTGTATTACATGTTGTTATAGAAAAGTATTTTAGA	1754
Ovr110v1	2600	TGGAGCCACGGTGACTGTATTACATGTTGTTATAGAAAAGTATTTTAGA	2649
Ovr110	1755	GTTCTGATCGTTCAAGAGAATGATTAAATATACATTTCTTAAAAA	1804
Ovr110v1	2650	GTTCTGATCGTTCAAGAGAATGATTAAATATACATTTCTTAAAAA	2690
Ovr110	1805	AAAAAAA	1811
Ovr110v1	2691		2690

FIGURE 17

Ovr110	1	MASLGQILFWSIIISIIIIILAGAIALIIGFGISGRHSITVTTVASAGNIGE	50
		
455_053.aa.2	1	MASLGQILFWSIIISIIIIILAGAIALIIGFGIS---EVSVWLSAMKGLVVE	47
Ovr110	51	DGIQSCTFEPDIKLSDIVIQWLKEGVLGLVHEFKEGKDELSEQDEMFRGR	100
		
455_053.aa.2	48	-----VPRLLPLALIFAS	59
Ovr110	101	TAVFADQVIVGNASLRLKNVQLTDAGTYKCYIITSKGKGNANLEYKTGAF	150
455_053.aa.2	60		59
Ovr110	151	SMPEVNVVDYNASSETLRCEAPRWFPQPTVWVASQVDQGANFSEVSNTSFE	200
455_053.aa.2	60		59
Ovr110	201	LNSENVTKVSVLYNVTINNTYSCMIENDIAKATGDIKVTESEIKRRSH	250
455_053.aa.2	60		59
Ovr110	251	LQLLNSKASLCVSSFFAISWALLPLSPYMLK	282
455_053.aa.2	60		59

FIGURE 18

Ovr110	1	MASLGQILFWSIISIIIIILAGAIALIIGFGISGRHSITVTTVASAGNIGE	50
455_053.aa.3	1	.:	20
Ovr110	51	DGIQSCTFEPDIKLSDIVIQWLKEGVLGLVHEFKEGKDELSEQDEMFRGR	100
455_053.aa.3	21	DGILSCTFEPDIKLSDIVIQWLKEGVLGLVHEFKEGKDELSEQDEMFRGR	70
Ovr110	101	TAVFADQVIVGNASLRLKNVQLTDAGTYKCYIITSKGKGNANLEYKTGAF	150
455_053.aa.3	71	TAVFADQVIVGNASLRLKNVQLTDAGTYKCYIITSKGKGNANLEYKTGAF	120
Ovr110	151	SMPEVNVDYNASSETLRCEAPRWFPQPTVVWASQVDQGANFSEVSNTSFE	200
455_053.aa.3	121	SMPEVNVDYNASSETLRCEAPRWFPQPTVVWASQVDQGANFSEVSNTSFE	170
Ovr110	201	LNSENVMTKVSVLYNVTINNTYSCMIENDIAKATGDIKVTSESEIKRRSH	250
455_053.aa.3	171	LNSENVMTKVSVLYNVTINNTYSCMIENDIAKATGDIKVTSESEIKRRSH	220
Ovr110	251	LQLLSKASLCVSSFFAISWALLPLSPYLMLK	282
455_053.aa.3	221	LQLLSKASLCVSSFFAISWALLPLSPYLMLK	252